Gravatt, Dan

From: Slugantz, Lynn
Sent: Wednesday, October 22, 2014 9:35 AM
To: Stoy, Alyse; Field, Jeff; Davis, Michael; McLaughlin, Casey; Beringer, Mike; Gravatt, Dan; Doolan, Stephanie; Hooper, Charles A.; Nold, Eric; Jackson, Robert W.; Hayes, Scott; R7-RO1.A-K33-18/R7-RO; Johnson, James
Subject: FW: Bridgeton Landfill daily monitoring messages 9-29-14 to 10-2-14 and 10-2-14 to 10-6-14
Attachments: DHSS Message 9-29-14 to 10-2-14.docx; ATT00001.htm; DHSS Message 10-2-14 to 10-6-14.docx; ATT00002.htm

Importance: High

Is there anyone out there who does not receive this information that would like to? I get these from Mike Zlatic at St Louis County.

Thank you,

Lynn M. Slugantz
Office of Regional Administrator
US EPA Region 7
11201 Renner Blvd, Lenexa KS 66219
(913) 551-7883 (d)
(913) 048-1129 (c)

From: Zlatic, Mike [mailto:MZlatic@stlouisco.com]
Sent: Tuesday, October 21, 2014 10:47 AM
(b) (6) [redacted]
Subject: FW: Bridgeton Landfill daily monitoring messages 9-29-14 to 10-2-14 and 10-2-14 to 10-6-14
Importance: High

It's interesting that elevated SO2 levels were noted in both reports when winds were predominantly from the south, rather than from the direction of the landfill. Whether these elevated levels were due to instrumentation, weather, other potential SO2 sources (located south of the Bridgeton Landfill), or a combination of factors is apparently unable to be determined.

Perhaps others may have some opinion.

Mike

From: Wambuguh, Dennis [Dennis.Wambuguh@health.mo.gov]
Sent: Friday, October 17, 2014 10:31 AM

0714 40498929 3.0
Superfund

au01

To: Ardrey, Brenda; Baker, Anna Marie; Bungart, Renee; Garoutte, Jonathan; Glassburner, Mary; 'Harman, Erin (harman.erin@epa.gov)'; Nagel, Chris; Parris, Michael; Prenger, Viola; Schmidt, Aaron; Terlizzi, Gena; Wambuguh, Dennis; WebGroup, WebGroup; Zlatic, Mike
Subject: FW: Bridgeton Landfill daily monitoring messages 9-29-14 to 10-2-14 and 10-2-14 to 10-6-14

Attached are approved DHSS messages on DNR air monitoring data from Bridgeton for 9/29/14 to 10/02/14 and 10/02/14 to 10/06/14.

Dennis Wambuguh, PhD.

Health & Risk Assessment Unit Chief

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DHSS Follow-Up Review of Air Monitoring Data from the Bridgeton Landfill Area, September 29 – October 2, 2014

The Department of Health and Senior Services (DHSS) has reviewed air quality monitoring data collected by the Department of Natural Resources (DNR) at Bridgeton Landfill from the afternoon of **September 29** to the afternoon of **October 2, 2014**.

DNR provides continuous monitoring of reduced sulfur compounds (reported as hydrogen sulfide), sulfur dioxide, carbon monoxide, and total volatile organic compounds (VOCs) at three fixed locations as well as routine, twice daily, surveillance of hydrogen sulfide, benzene, and odor levels around the entire periphery of the landfill. DHSS has reviewed both sets of data to identify potential public health concerns for short-term health effects. Generally, samples are collected near the property boundary and dispersion is expected to reduce exposure downwind of the sample locations.

Odors

DNR reported occasional light, moderate, and strong odors at various locations during this time period. DHSS continues to recommend that during periods of objectionable odor, sensitive individuals should stay indoors as much as possible, avoid outdoor exercise, and seek medical advice for any acute symptoms. Symptoms associated with exposure to strong odors include headache, nausea, and fatigue. Symptoms generally associated with strong odors typically disappear once the odors dissipate.

Hydrogen Sulfide and Other Reduced Sulfur Compounds

Hydrogen sulfide concentrations were below levels of public health concern. Hydrogen sulfide levels are measured by the highly sensitive Jerome meter, which detects hydrogen sulfide specifically. Reduced sulfur compounds were periodically detected by AreaRAE monitors, but previous sampling has shown that these detections are primarily due to a reduced sulfur compound with strong odor but lower toxicity.

Sulfur Dioxide

Sulfur dioxide concentration readings were recorded above levels of public health concern for several hours on October 1 and 2 in a residential location southeast of the landfill. During this time the monitors were experiencing fluctuations, potentially due to weather conditions including high humidity and changes in pressure from a passing storm. While sulfur dioxide readings were fluctuating, winds were predominantly from the south, rather than from the direction of the landfill. Exposure to the elevated levels of sulfur dioxide may cause respiratory irritation or other short-term symptoms, particularly in asthmatics or other sensitive individuals.

Benzene and Total VOCs

Benzene was not detected in ambient air at any of the surveillance locations around the landfill during this time period. There are no health-based screening values for total VOCs. However, total VOC data are used to identify the need for compound-specific sampling. To be proactive, DNR is performing weekly VOC compound-specific

sampling in locations upwind and downwind of the landfill. The laboratory results are submitted for DHSS review of public health concerns and that analysis is regularly posted online.

Carbon Monoxide

Average carbon monoxide concentrations were below levels of public health concern.

Radiation Rates

Gamma radiation rates continue to be indistinguishable from natural background levels and were below levels of public health concern.

DHSS Follow-Up Review of Air Monitoring Data from the Bridgeton Landfill Area, October 2 – October 6, 2014

The Department of Health and Senior Services (DHSS) has reviewed air quality monitoring data collected by the Department of Natural Resources (DNR) at Bridgeton Landfill from the afternoon of **October 2** to the afternoon of **October 6, 2014**.

DNR provides continuous monitoring of reduced sulfur compounds (reported as hydrogen sulfide), sulfur dioxide, carbon monoxide, and total volatile organic compounds (VOCs) at three fixed locations as well as routine, twice daily, surveillance of hydrogen sulfide, benzene, and odor levels around the entire periphery of the landfill. DHSS has reviewed both sets of data to identify potential public health concerns for short-term health effects. Generally, samples are collected near the property boundary and dispersion is expected to reduce exposure downwind of the sample locations.

Odors

DNR reported occasional light odors at various locations during this time period. DHSS continues to recommend that during periods of objectionable odor, sensitive individuals should stay indoors as much as possible, avoid outdoor exercise, and seek medical advice for any acute symptoms. Symptoms associated with exposure to strong odors include headache, nausea, and fatigue. Symptoms generally associated with strong odors typically disappear once the odors dissipate.

Hydrogen Sulfide and Other Reduced Sulfur Compounds

Hydrogen sulfide concentrations were below levels of public health concern. Hydrogen sulfide levels are measured by the highly sensitive Jerome meter, which detects hydrogen sulfide specifically. Reduced sulfur compounds were periodically detected by AreaRAE monitors, but previous sampling has shown that these detections are primarily due to a reduced sulfur compound with strong odor but lower toxicity.

Sulfur Dioxide

Sulfur dioxide concentration readings were recorded above levels of public health concern for one hour on October 2 in a residential location southeast of the landfill. During this time the monitors were experiencing fluctuations, potentially due to weather conditions including high humidity and changes in pressure from a passing storm. While sulfur dioxide readings were fluctuating, winds were predominantly from the south, rather than from the direction of the landfill. Exposure to the elevated levels of sulfur dioxide may cause respiratory irritation or other short-term symptoms, particularly in asthmatics or other sensitive individuals.

Benzene and Total VOCs

Benzene was not detected in ambient air at any of the surveillance locations around the landfill during this time period. There are no health-based screening values for total VOCs. However, total VOC data are used to identify the need for compound-specific sampling. To be proactive, DNR is performing weekly VOC compound-specific

sampling in locations upwind and downwind of the landfill. The laboratory results are submitted for DHSS review of public health concerns and that analysis is regularly posted online.

Carbon Monoxide

Average carbon monoxide concentrations were below levels of public health concern.

Radiation Rates

Gamma radiation rates continue to be indistinguishable from natural background levels and were below levels of public health concern.